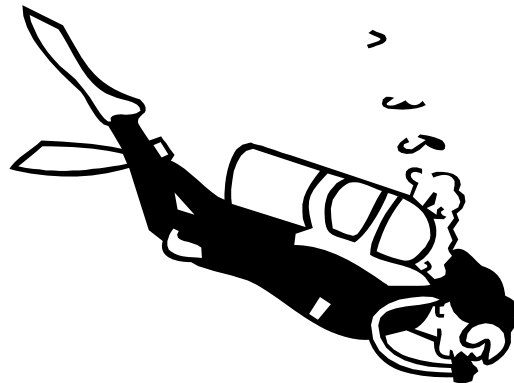


***COLUMBIA COUNTY, GEORGIA  
EMERGENCY MANAGEMENT  
AGENCY***

***DIVE RESCUE & RECOVERY TEAM  
STANDARD OPERATING  
GUIDELINES***



***Revised March 2006***

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## **PURPOSE**

These procedures are established to provide basic guidelines to be followed by the members of the Columbia County Emergency Management Dive Rescue & Recovery Team, hereafter called "Dive Team". The Dive Team is comprised of volunteer members that meet the training and physical requirements to safely perform duties as under water recovery specialists and boat operators.

## **MISSION**

The Dive Team will safely conduct underwater searches for missing persons and work with law enforcement to recover evidence of a crime within the bodies of water located in Columbia County. Other duties include, but are not limited to, manpower and expertise for surface searches, ground searches, rescue and safety operations in times of natural disasters, accidents, or as asked by the EMA Director. The team will maintain public relations through safety demonstrations, boaters safety course, various appearances and presentation, etc. The team may also be called upon to provide mutual aid to other governmental agencies where written agreements are in place.

## **REFERENCES**

P.S.D. Instructor Manual  
Med-Dive Manual  
P.A.D.I. Instructor Manual  
U.S. Navy Diving Manual (Rev. 4 20 Jan. 1999)  
N.O.A.A. Diving Manual (4<sup>th</sup> Edition)  
O.S.H.A. Standards: 1910.410, 1910.420, 1910.421, 1910.423, 1910.424  
N.F.P.A. Standard 1670-sect. 7-4.7

Revision compiled by:  
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# **I. AUTHORITY AND RESPONSIBILITY**

## **1.1 Chain of Command**

Columbia County Board of Commissioners  
EMA Director  
Dive Chief  
Training Chief  
Operations Supervisors  
Public Information Officer  
Divers/Support Personnel

## **1.2 Responsibilities and Duties**

It shall be the responsibility of any person within the chain of command of the dive team, with the exception of the Columbia County Board of Commissioners, to notify all persons on the dive team should they be unavailable for call. With the notification of unavailability to respond to calls, the person within the chain of command shall designate another member to take call for them during their absence. This notification should include the time period of unavailability and the designated person responsible for the unavailable officer. Upon returning to available status, the officer must notify all dive team members of his availability and re-assume their responsibility as an officer.

**EMA Director** - is appointed by the Director of the Georgia Emergency Management Agency upon nomination by the Columbia County Board of Commissioners and has overall responsibility for all areas of emergency management. **EMA will provide administrative support and oversee the operation to assure all aspects of this SOG are followed.**

**Dive Chief** - is appointed by the EMA Director, and is responsible for all water related activities. Ensures that all divers and boat operators are physically fit and certified to perform effectively. Schedules training for all members of the Dive Team. Ensures that dive equipment and boats are operational, and all necessary equipment is accounted for and functional. Maintains a current roster of the available "on call" divers. The Dive Chief shall be qualified as an operations supervisor.

**Training Chief** - is appointed by the EMA Director. Responsible for coordinating both classroom and practical training missions on a routine basis. Training missions may include training with other department/agencies when approved by the EMA Director. The Training Chief will work closely with the Dive Chief to assist in the evaluation of each new Dive Team member, as well as seasoned divers, on an ongoing basis and report any concerns to the EMA Director. The Training Chief will serve as incident commander in the absence of the Dive Chief or until the Dive Chief arrives at the scene.

**Operations Supervisors** - are appointed by the EMA Director, after consulting with the Dive Chief and the Training Chief. The senior operations supervisor at the scene will serve as the incident commander in the absence of the Dive Chief or the Training Chief. Appointment as operations supervisor is made with due consideration of leadership training, experience, and dive education. Operations supervisors will assume command of the scene as the needs of an in water situation dictate. (There will be three operations supervisors, ranked level one, level two, and level three.)

**Public Information Officer** - is appointed by the EMA Director and will provide on-scene information to the news media and family members. Additionally, the PIO will develop a system of communication for the team members and outside emergency service agencies via newsletters.

**Divers and Support Personnel** - are appointed by the EMA Director after consulting with the Dive Chief and following a satisfactorily completed six-month probation. Divers and support personnel must be familiar with proper procedures in boat handling operations, as well as Dive Team SOP's. Divers and support personnel will maintain a reasonable state of health, and will report any serious health issues to the Dive Chief.

**Insurance Coverage** - all EMA Dive Team volunteers will be covered by the Columbia County Workers' Compensation plan.

### **1.3 Mandatory Requirements**

**Background Check** - each candidate will consent to a background check. This check will reveal criminal and traffic records. More than one traffic violation in a three-year period, any criminal conviction, and any behavior deemed inappropriate by the EMA Director or Dive Chief is ground for dismissal.

**Medical History** - medical information may be crucial if a team member is involved in an accident with the Dive Team. A medical form will be completed by each team member and updated annually or any time there is a change to the information on the form. Medical information is kept confidential and is regulated by the EMA office.

**Vaccinations** - team members may be exposed to possible disease and contamination. To prevent any mishap, members should have the hepatitis "B" series vaccination. Additionally all divers and support personnel shall have a current tetanus vaccination.

**New Members** - New member applications will be collected at the EMA office. When three applications have been submitted, the officers will interview candidates and make member selections.

### **1.4 Meetings and Events**

**Team Meetings** - will be scheduled and set by the EMA Director, the Dive Chief and officers as needed. All members will be notified in writing of the meeting location, date, and time and are expected to attend a minimum of three training sessions and three meetings per year.

**Events** - are held throughout the year at a variety of locations around the community. Attendance for these events is important for public recognition and educational purposes. The PIO will coordinate these activities.

### **1.5 Code of Ethics**

**Safety** - at **NO** time will a diver or support personnel be asked to perform in a situation where he or she does not feel comfortable. Team safety is of the utmost importance!!

**Appearance** - every team member will display his/her EMA ID badges as part of the dive team uniform. Each team member is responsible for his or her appearance. It is preferred that the

team T- shirt be worn, with optional black pants. The officer in charge will reject any team member who is not appropriately attired.

**Behavior** - horseplay, abusive language, and any aberrant behavior **will not be tolerated.** We will conduct ourselves in a professional manner. Any report of misbehavior will result in an investigation and possible termination from the team. We are our brother's keeper!

**Media** - at no time will a team member make comments or speculation to the media or family members. Only the officer in charge, or preferably the PIO will comment on the team's intentions or the incident. When a call involves a death, team members should assemble away from the crowd. Personnel not directly involved with the search and recovery efforts should remain assembled away from view and hearing distance of spectators and family.

**Guideline Compliance** - team members will adhere to strict SOG compliance and or the officer in charge. The officer in charge will conduct risk assessment and consider overall risk to the team, general public, and the environment. Safety is of the utmost concern regardless of the SOG.

**Accidents and Injuries** - accidents or injuries, no matter how slight, will be reported to the officer in charge. An accident report will be completed. **(See Attachment #3)** Boating accidents with or without injuries will immediately be reported to the Georgia Department of Natural Resources (DNR).

**The Dive Chief**, Training Chief, Supervisors, Divers, and Support personnel's membership on the Dive Team is at the discretion of the EMA Director. Members of the team are entitled to fair and equal treatment. Problems within the team will be handled in an organized fashion. Members should first report any problems or issues to the dive chief. Members have the right, at any time, to contact the EMA Director with any problem or issue. The EMA Director shall make the final determination of the problem or issue.

## **CALL OUT/RESPONSE**

**1.6** Most water related incident calls are received through the Columbia County 911 center.

- Upon receipt of such call, 911 will determine if it is an emergency or non-emergency call.
- If it is an emergency call (boating accident or confirmed drowning), the 911 center will dispatch appropriate first responder personnel. The dispatch information will include Location, Type of Call and Time Down of the Victim. (Appropriate First Responder Personnel include, Local Law Enforcement, Local EMS and First Responders which are notified by EMS in our county)
- The 911 center will then page the Dive Team with the Location, Type of call and time down of the victim. (Example: <DIVE TEAM CALLOUT> Lakesprings, Drowning, Time Down 15 Minutes.)
- Upon receipt of the page, the EMA Director and Commanding Officer will notify 911 of receipt of the page and acknowledge the dive team is responding.
- The 911 center will also notify DNR, Corps of Engineers and Fort Gordon when necessary to do so.
- Should the 911 center determine the call to be a non-emergency call they will notify the EMA Officers via the EMA Officers paging group.
- At this point it shall be the dive team commanders' responsibility to determine whether or not a full dive team response is necessary and notify dive team personnel in accordance with above notification procedures.

**1.7** The Fire Department on scene will assume command of the incident. Upon arrival of the Incident Commander, he shall assess the incident and notify the Dive Team Commander his assessment while the dive team commander is en route to the incident location. This may be communicated via incident commander radio to dive team commander radio, incident commander cell phone to dive team commander cell phone or incident commander radio to dispatch-dispatch to dive team commander's cell phone.

- For such locations with only one point of entry from the roadway or deemed necessary by the incident commander or dive team commander, the incident commander will appoint personnel with the ability to communicate with the incident commander via radio to stage at the entry point to notify arriving emergency personnel and dive team members of the incident location and/or the staging area should one be setup and be activated for the length of the response.

**1.8** Upon arrival of the dive team commander, he shall meet with the incident commander to form a unified command structure.

**1.9** The Dive Chief or officer in charge will assess what type of call, member expertise, how many members, and possible special equipment needs. He will also appoint a dive team member with communications with the incident commander to staff the staging area to relay information regarding the incident to other dive team members in staging.

**1.10** After receipt of the dive team call out, only the dive team personnel that are responding shall contact the dive team commander via cell phone and notify him of their response and an estimated time of arrival. At no point should dive team personnel contact 911 or the fire department dispatch for additional information regarding the call unless you receive an update via pager to do so. For the dive team personnel that are unable to respond, no communication is necessary with the dive team commander.

**1.11** Types of dive calls:

**Emergency:** an incident that is considered to be imminent danger to human life. (Example: Boating Accidents and confirmed Drowning)

**Non-Emergency:** an incident that involves the known recovery of a victim and/or property. (Example: Evidence Recovery and possible Drowning ((search call, unknown whereabouts of a specified person))

*(Not Determined by 911)*

**Training:** planned diving and/or training exercises. General meetings.

**Educational:** planned safety awareness events and public relations.

**1.12** Team members will strictly adhere to prevailing traffic laws while en route to and returning from an incident.

**1.13** Upon arrival at the scene, team members will report to the location provided by the fire department personnel assigned to the entrance of the incident location. Do not begin setting up equipment or unload vessels until directed to do so.



**1.14** Team members will remain in the designated staging area in a professional posture, while the officer in charge makes an assessment.

**1.15** Should the dive team commanding officer at anytime determine that no additional dive team members are needed, he shall immediately notify 911 to send out a page notifying dive team members to stand down.

## **II. DIVERS**

**2.1** For the purpose of risk assessment, divers will be classified as:

**1<sup>st</sup> Class** - Ability to perform under extremely stressful conditions; very strong currents and extreme depths, little or no visibility, overhead or enclosed environments. Able to perform complex tasks, such as: decompression, minor salvage, surface supplied diving, etc. Knowledge equivalent to that of a dive master.

**2<sup>nd</sup> Class**- Ability to perform under moderate conditions. Up to strong currents, low visibility, and night operations. Stays within the boundaries of recreational diving.

**3<sup>rd</sup> Class**- New team divers. Newly certified personnel. Divers who have limited logged bottom time. Little or no current, good visibility, no night diving. Stays within recreational diving limits.

**2.2** All divers will be certified by a recognized SCUBA agency and will stay within those agencies guidelines.

**2.3** Five people will be present at all times when diving; primary diver with tender, safety diver with tender, officer in charge of scene.

**2.4** An Incident Info/Diver Info Sheet will be completed before a dive. This can be done by a dive tender. (***See Attachment #1***)

**2.5** The following is a basic list of equipment each team diver shall have:

- A)** Mask (tempered glass)
- B)** Fins
- C)** Snorkel
- D)** Knives (one for high attachment and one for low attachment, in the event of entanglement)
- E)** Regulator
- F)** Pressure gauge
- G)** Alternate air source
- H)** B.C.D.
- I)** Adequate thermal protection
- J)** Depth gauge
- K)** 2 dive lights (1 primary & 1 back-up)
- L)** Compass
- M)** Watch
- N)** Tank
- O)** Weight belt

**2.6** The officer in charge is **not** to dive or leave the scene unless properly relieved. It is his/her responsibility to maintain constant control while overseeing the entire operation from topside.

**2.7** A safety diver will remain fully suited and ready for an in water emergency at a moments notice. He/she will have no other duties while a safety diver. The safety diver will be stationed at the entry point and have his/her own tender.

**2.8** Divers will enter the water only at the direction of the dive officer. A diver may terminate a dive at any time for any reason.

**2.9** A dive will end when a diver reaches 500 psi or calculated bottom time is met. Which ever comes first.

**2.10** **There is to be no** use of alcohol or drugs at any time during a dive operation and/or pre/post dive 4 hours.

**2.11** A fully stocked trauma/first aid kit and emergency oxygen will be at the dive scene for all dive operations.

**2.12** The **dive scene** is defined as the area where the command post, area of probability, and general area of an accident are located. The **dive site** is the immediate area where the divers are located and direct contact can be made with the divers if need be.

**2.13** Dives to 30 ft. or less will be calculated as 35 ft. dives.

**2.14** Ascent rate will not exceed 60 ft./min.

**2.15** A safety stop for three minutes @ 15 ft. is required anytime a diver comes within 3 pressure groups of the no-decompression limits, and/or dives greater than 90 ft., air permitting.

**2.16** Use of a dive log & timing device for all dives is required. The log will be retained for permanent record. (See attachment #1)

**2.17** Due to variance in timing devices, the device used to start a dive will remain with the log throughout the entire dive.

**2.18** A Rapid Field Neuro Check sheet will be completed when a diver is suspected of an in water injury, or when a diver has been at depths greater than 60 ft. (see attachment #2)

**2.19** When decompression diving or dives of extreme depths are going to be performed, a chamber must be available (Doctor's Hospital, Eisenhower Hospital). An ambulance will be located at the dive scene. Emergency oxygen, fully stocked first aid/trauma kit, spine board, and dive officer will be at the dive site through out the dive. In the event a dive related emergency requires a chamber stay, D.A.N. (Divers Alert Network) will be notified (toll free 1-877-595-0625) while en-route to the chamber. Doctors at Duke University will be able to assist local doctors with specialized treatment via telephone. D.A.N. is operated 24 hours/ 7 days a week.

**2.20** A suitable decompression line (markings at 15 ft. and 30ft. at the very least) will be used during all deep/extended dives.

**2.21** Rule of thirds, redundant air system, and continuous guideline will apply if diving in an overhead environment. This will also be the case for the safety diver. **No exceptions.**

**2.22** All divers will undergo an annual SCUBA review to assess their skill level.

## **SUPPORT/TENDER PERSONNEL**

**2.23** Support members help set up at the dive scene once a plan is enacted, i.e.; dress-out area, staging areas, unload/stow equipment etc. Support members will also set up recovery areas, food and liquid refreshment, blankets, towels, etc. for extended searches.

**2.24** Support members will also help establish communications, have a basic knowledge of operations, have a basic knowledge of equipment, maintenance, cleaning, location and stowage of equipment.

**2.25** A qualified dive tender will have a basic knowledge of: dive tables, know and understand search patterns, how to set up pattern lines, understand line signals, know how to set up a SCUBA unit, aid divers in suiting-up, entries/exits/and pickups of divers.

**2.26** A tender will have no other duties while in the dive mode. His undivided attention and awareness will be on his diver in the water at all times.

**2.27** A tender is also responsible for tracking and documenting a diver's P.S.I. He/she also monitors a diver's down time.

**2.28** A personal flotation device (P.F.D.) will be available for any support/tender personnel within 10 ft. of the water or as directed by the diving supervisor.

## **III. Boats and Vessels**

**3.1** Only qualified team members may operate boats and watercraft. To qualify as an operator, team members must complete a Department of Natural Resources (D.N.R.) boater's safety course. He/she also will be checked out on each watercraft he/she will operate. D.N.R. will be notified of any accident involving watercraft.

**3.2** All passengers and crew will wear a coast guard approved personal flotation device (P.F.D.) while the watercraft is under way.

**3.3** Safety lanyards will be worn on all watercraft that require them.

**3.4** It is up to the operator to ensure the watercraft he/she will operate is fully rigged and "ready for sea" prior to an operation. (Enough life jackets, fuel, oil, safety equipment, plugs installed, working navigational lights, etc.) Any citations or fines incurred due to the operators' negligence will be the operator's responsibility.

**3.5** The watercraft will not come any closer than 10 ft. to divers or personnel in water. The watercraft's motors will not be operational while divers or personnel are being recovered from the water. Recognized exceptions are: A) Where extreme currents are present and there is no other way to recover divers. The divers and operators will preplan this recovery and extreme caution will be used. B) In the event of imminent danger to life.

**3.6** The watercraft operator is also responsible for:

- A) Keeping abreast of current and forthcoming weather conditions.
- B) Ensuring the vessel is not overloaded.

- C) Keeping all equipment stowed, cargo from moving about, maintaining a constant vigil for tripping hazards, and general safety of personnel and vessel.
- D) While divers are in water knowing exactly where each diver is located at all times.
- E) Maintaining a constant watch to keep unauthorized vessels from entering the dive site. Dispatching chase boats to fast approaching vessels.
- F) Displaying the dive flag during dive operations.

**3.7** Due to the size of the houseboat, two team members are required for operation, the operator and an observer.

**3.8** Team members will not operate watercraft or other equipment, whether personally owned or county owned, unless directed by the officer in charge. This is to include all training.

**3.9** All team watercraft and equipment will be run for fifteen minutes every two weeks to ensure their operability. A log will be kept on each piece of equipment. The log will contain the date equipment was run, time equipment was run, and any discrepancies found on equipment.

## **IV. SEARCH & RESCUE/RECOVERY**

### **Witness Interview/Risk Assessment**

**4.1** The officer in charge will interview witnesses as soon as possible.

- A) Separate and interview witnesses
- B) Have witnesses take you to the location where the victim was last seen.
- C) I.D. the most probable location of the victim.
- D) Family members are naturally going to be under a great deal of stress and must be treated with respect.
- E) Young witnesses often will respond more favorably to a female interviewer.
- F) Questionable witnesses, intoxicated or emotionally unbalanced should **not** be ruled out automatically. However, the interviewer should make note of their condition.
- G) Ask witnesses to produce legal IDs. (One reason for this is that there have been times when a curious suspect will return to his/her crime scene to watch the subsequent dive operation.)

**4.2** Take witness information, name, address, telephone number, and where they can be reached in the next 24 hours, in the event of a prolonged recovery effort.

**4.3** Risk assessment is made with respect to, but not limited to:

A) weather B) currents C) visibility D) bottom composition E) air and water temperature F) depth G) day/night H) obstacles I) entry/exit points J) equipment considerations K) diver experience L) available manpower M) logistics

**4.4** The risk/benefit factor is a subjective evaluation of the merits of an operation. **Safety is priority in all our activities!** #1 Team safety #2 General public safety #3 Safety of the environment

**4.5** After gathering information, conducting interviews, performing a risk assessment, the officer in charge will brief the team. Describe the nature of the incident, assign buddy teams, identify equipment needs, detail the diving conditions, and mode of operation. Team members are

encouraged to analyze for hazards, help establish safety controls, and voice any concerns. Begin operations with, “ plan the dive and dive the plan.”

**4.6** Dive officers and team members should consider and anticipate the following logistics:

- Depletion of air supply; necessitating setting up transportation of dive bottles for refill.
- Assurance of a working air compressor.
- Food and liquid refreshment. Shelter from the cold or heat.
- Gas/oil for equipment and boats.
- Communications between teams/agencies.
- Specialized equipment.
- Overnight?
- Uncooperative wildlife.
- More personnel than anticipated. Needed/not needed.

**4.7** The team operates in one of two modes:

**Rescue Mode:** When there is a chance to save a human life. This is within one hour of a victim’s drowning. Also known as the “ golden-hour.” The officer in charge will notify E.M.S. personnel while enroute to the scene or make sure that they have been notified. At the scene team members should act quickly, preparing to retrieve victim and setting up for resuscitation efforts. Note: all Dive Team members will adhere to prevailing traffic laws.

**Recovery Mode:** When all efforts outside of one hour are exhausted and rescue efforts of futile. The transition from rescue mode to recovery mode should be made subtly, undetectable to the victim’s family, friends and onlookers. This can be done by simple hand signals, like a tap on a watch. Or by simply saying, “change modes.”

#### **4.8 Line Signals**

Note: Search lines must be kept tight. The diver is in control of the search line. Taking direction from the tender. The diver will **in no way** attach the line to his/her equipment or self. The line is to be only hand held. (***See Illustration 1 for proper technique***) The tender will let out about two feet of line after a pass; he will also make a knot in the line after every pass.

##### **Diver to Tender**

- 1 pull = I’m okay.
- 2 pulls = More line. (advance)
- 3 pulls = Found object.
- 4 pulls = Send help!

##### **Tender to Diver**

- 1 pull = Are you okay?
- 2 pulls = Stop, change direction.
- 3 pulls = Come to surface.
- 4 pulls = Stop, danger topside.

**4.9** The officer in charge should draw a scene sketch. It doesn't have to be elaborate but should contain: the last seen points, significant landmarks, and areas being covered by search patterns. Compass headings are very helpful.

#### 4.10 Search Patterns

**Sweep or Arc Pattern** - This is the team's standard pattern. It can be run from shore, a bridge, a dam or a pier. It can also be applied during a boat-based operation under the right conditions. Under ideal conditions, a pattern can be run up to 200 ft. from the line tender. **(See Illustration #2)**

**Parallel Pattern** - Used for searching a large and relatively clean area (free of obstructions). It is particularly advantageous when the object of the search is suspected to be close to shore, but there is a poor last-seen-point. **(See Illustration #3)**

**Snag Method** - Used when a large object (i.e. a car) is being sought, and a large area is being searched, a substantial distance can be covered with each pass. **(See Illustration #4)**

**Cone of Probability** - To assure complete and reliable coverage of a search area, keep in mind cone of probability with any pattern used. **(See Illustration #5)** Additional search patterns can be found behind this illustration.

#### 4.11 Victim Retrieval (rescue mode)

The diver will:

- Signal the line tender with three tugs when he has found and secured a grip on the victim.
- Follow the bottom contour back to shore if operating a shore based search or swim directly to the boat if operating a boat based pattern.

The line tender will:

- Tie a knot in the line.
- Advise the team leader of the find.
- Note reference points (landmarks and/or compass headings).
- Keep slack out of the line to help the diver navigate back to the surface or (if the diver had requested it in advance), the line tender may pull the diver back to the surface.
- Alert the rest of the Dive Team to standby for the resuscitation procedure.

**Note:** The diver should maintain a solid grip on the victim such as under the arms and around the chest or by the belt or back of the pants. The diver must take care not to cause the victim further harm, such as by letting the victim's face drag along the bottom contour.

#### 4.12 Victim Retrieval (recovery mode):

The diver will:

- Signal the line tender with three tugs.
- Tie the search line off on the body in a manner that will minimize damage to the body.
- Conduct an area search by hand for additional evidence near the body.
- Return to surface to review the strategy for recovering the body.
- Conduct a complete investigation (with photography if possible), of the underwater scene, body's positioning and condition under water.
- In some cases, wait for a second diver to bring down and body bag or evidence containers instead of retrieving the body single-handedly.

The line tender will:

- Maintain contact with the line as the diver makes a hand search of the immediate area for additional evidence.
- Take a compass reading off of the line, make note of it in his record book, and tie a double knot in the search line. Also note location via landmarks and/or G.P.S.
- Keep line taut as the diver follows it back (with one end tied to the body) to report topside.

**Note:** The line tender must be careful not to pull or change the location of the victim's body through this tension. Be sure the diver checks the area beneath the victim for additional evidence. The family should be removed from the scene. Precautions should be taken to avoid explicit photo and television coverage. The general rule of consideration is to handle the body as if it were your own relative.

#### **4.13 Vehicle Recoveries:**

**A)** The team will conduct a scene evaluation for a good "last seen point". Some signs the team should look for are; tire tracks and possible debris from the wreckage onshore leading to the water. Air bubbles and gas/oil slicks, are also a good sign of the vehicle's location.

**B)** Once the vehicle is located, a brief initial investigation should be done. Look to see if the vehicle's keys are in place and if they are in the "off" or "on" position. Are the lights on? Is the vehicle in gear? Also check to see if the vehicle's gas pedal has been tampered with (i.e. weighted down with a rock).

**C)** When determining if the vehicle should be raised first, or if the victims can be removed while it is still under water, the diver should try the doors, reach through the windows, and make an overall survey of the vehicle's condition and position.

**D)** Divers must carefully consider the risk of entanglement before entering a vehicle. Particularly avoid entering a standard or compact sized car.

**E)** The best apparatus for vehicle removal is a heavy-duty, nylon webbing attachment strap. The wrecker operator normally provides this type of equipment.

**F)** In some cases the vehicle may be refloated using lift bags prior to towing it to shore. This is a special skill and will be performed by first-class divers only. Team members must stand clear while the vehicle is being moved.

#### **4.14 U/W Investigation and Evidence Recovery:**

**A)** A good rule of thumb is that it is better to over collect evidence than to leave anything that may be important later.

**B)** Any articles that appear to be out of place or damaged, in addition to the obvious pieces of evidence, should be collected.

**C)** Document the crime scene. If possible use photography. At minimum, a crime scene sketch should be done. The sketch should contain, all measurements, compass readings and other pertinent information. It should be accurate and clear.

- D) There are two basic methods to making a crime scene sketch, the baseline method and the triangulation method. **The Baseline method** is used when there is a solid straight line available. A pier or boat ramp often serves this purpose. A polypropylene search line is pegged top side, run along the structure and out into the water to a point parallel with the crime scene evidence. A measurement is then taken of the evidence at a 90-degree angle from the line. **The Triangulation method** employs two separate, permanent points on shore (corner of building, bridges) with measurements from each intersecting at the location of the evidence. Objects such as trees and telephone poles are not preferable because they can be damaged or moved with time.
- E) **Removing evidence:** Caution must be taken to not affect the evidentiary nature of the object(s). Example: If a body is tied to a heavy object it would be better to cut the rope rather than to untie it as the knot could be part of the suspect's method of operation. If you have to alter evidence in anyway, the procedure must be documented in the diver's report. Avoid placing objects in plastic bags; they can rub off any possible fingerprints. An evidence container should be used and the same liquid (water) that it was found in should also be contained. **Extra care should be used when handling firearms underwater!** They can still discharge even after several months under water. Do not try to render the firearm to a safe condition, collect the evidence just as found. Be careful!



**INCIDENT REPORT**  
**Columbia County**  
**Emergency Management Agency**  
**Office 868-3303 Fax 868-3343**

CASE NUMBER: \_\_\_\_\_ CONTACT PERSON: \_\_\_\_\_

DATE & TIME OF CALL: \_\_\_\_\_ ARRIVAL TIME: \_\_\_\_\_

CALLED BY: \_\_\_\_\_ ASSISTED BY: ☐ Fire ☐ Police ☐ Ambulance ☐ Other

TYPE OF CALL: ☐ Rescue ☐ Recovery ☐ Search-land/water ☐ Mutual Aid/Support ☐ Other

LOCATION: ☐ Lake ☐ Pond ☐ River ☐ Isolated Area ☐ Neighborhood ☐ Public Area

VICTIM/WITNESS NAME: \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

AUTO/PROPERTY DESCRIPTION:

<u>DIVE TIMES</u>			
DIVER	TIME IN	TIME OUT	BOTTOM TIME

DEPTH: \_\_\_\_\_ VISIBILITY: \_\_\_\_\_ ENTRY: ☐ Boat ☐ Shore ☐ & Other

DESCRIBE ENTRY AREA:

SERVICE PERFORMED FOR: ☐ This County ☐ Other County ☐ Individual ☐ Public Service EQUIPMENT  
USED: ☐ Dive truck R4 ☐ EMA Boat ☐ Personal Vehicle/Boat ☐ SCUBA Gear

- ☐ Rope
- ☐ Winch
- ☐ Buoys/Search Grids
- ☐ Stokes/Backboard
- ☐ Generator/Lights
- ☐ Body Recovery Supplies
- ☐ Medical Supplies
- ☐ Other

LIST REPLACEMENT ITEMS:

ESTIMATED COST OF OPERATION:

TIME IN SERVICE: \_\_\_\_\_ TIME DISMISSED: \_\_\_\_\_

ATTENDANCE			
Member	Duty	Member	Duty

NARRATIVE:

MEMBER TAKING REPORT:

## Attachment #2

### Chapter Five Appendix The Rapid Field Neuro Exam

#### MENTAL STATUS:

- 1) Ask the diver to state his name, where he is, the time of day, and most recent activity.
- 2) Evaluate his speech for clearness and appropriateness.

#### CRANIAL NERVES:

##### 1) Sight/Eye Movements:

- a) Hold up different numbers of fingers for the diver to count.
- b) Have the diver follow your finger with his eyes while keeping his head straight. Move your finger up, down, left, and right. Watch for nystagmus.

##### 2) Facial Movements:

- a) Place your fingers at the angle of the diver's jaw and ask him to clench his teeth.
- b) Ask him to wrinkle his forehead as you smooth the skin.
- c) Instruct him to stick his tongue out and move it in all four directions.
- d) Check the diver's smile for symmetry.

##### 3) Head/Shoulder Movements:

- a) Ask the diver to tilt his head back and swallow. Watch for his "Adams Apple" to move.
- b) Push down lightly on his shoulders, asking him to shrug.
- c) Put your hand on one side of the diver's face and ask him to push against it. Do the same with the other side, and on the forehead and back of the head.

- 4) Hearing: Rub your fingers together close to the diver's ears to identify the sounds he's to listen for. Ask him to close his eyes. Move your hand away from his ear and make the sound again. Continue to make the sound as you move your hand back towards the ear. Ask him to tell you when he can hear the sound again.

#### SENSATIONS:

- 1) The objective is to evaluate the sense of light touch and make sure it's equal on both sides of the body.
- 2) Sensations are checked with the diver's eyes closed, pockets empty, and the diver dressed down to light clothing or bare skin.
- 3) Tell the diver that the light touch should feel normal and the same on both sides of his body.
- 4) Evaluate the body sections, checking the right and left sides at the same time. Overlap the sections slightly.
  - a) Run your fingers across the forehead, down the sides of the face, and along the jaw line.
  - b) Then run your fingers down the diver's chest, abdomen, front of arms, legs and across the hands.
  - c) Turn him around and run your fingers down his back, buttocks, and the backs of the arms and legs.

#### MUSCLE TONE:

- 1) The objective is to evaluate muscle tone and determine that it's equal on both sides of the body.
- 2) Have the diver bend his arms so that his hands meet in the center of his chest. With his arms bent, have him bring his elbows up level with his shoulders (or demonstrate the move and say "Do this").
- 3) Tell him to push against you as you push his elbows up, then down, and pull his hands away from his chest and push them back.
- 4) To evaluate grip strength in each hand ask him to squeeze two of your fingers.
- 5) Leg evaluation, diver sitting: Evaluate both legs. Put your hand on his thigh and ask him to pick the leg up against resistance. Then put your hand under the thigh and ask him to pull down. Put your hands on the front of his lower legs and ask him to push out. Then put your hands behind the legs and ask him to pull back.
- 6) Leg evaluation, diver laying: Evaluate both legs. Ask him to do a straight leg raise as you lightly push down on the leg. Have him bend the leg up and push against your hand as you hold his foot.
- 7) Foot evaluation: Have the diver pull his feet up as you push them down and then push against your hands as if pushing on a pedal.

#### BALANCE AND COORDINATION:

- 1) The objective is to make sure that the diver can hold himself upright, move without being off balance and that he has normal hand eye coordination. Protect the diver from falling.
- 2) Romberg Test: Have the diver stand upright with his eye closed, feet together and arms outstretched in front of him. Ask him to stand this way for several seconds. Then ask him to walk in place, bringing his knees up. Eyes remain closed.
- 3) Heel-shin slide: If the diver is laying down, have him place the heel of one foot on the opposite leg, just below the knee. Then have him run the heel down his shin to the ankle. Do both legs.
- 4) Alternating hand movements: Have the diver alternately touch his index finger to his nose and then to your finger, held about 18" (5 meters) away from his face. Repeat the movement several times and test both hands.

#### VITAL SIGNS (If trained and equipped):

- 1) The objective is to evaluate the findings in the rapid field neuro exam with the baseline vitals.
- 2) Blood pressure
- 3) Pulse
- 4) Respirations



# Rapid Field Neuro Checksheet

Diver's Name: \_\_\_\_\_ Name of Examiner: \_\_\_\_\_ Date: \_\_\_\_\_

Initial Complaint: \_\_\_\_\_

NOTES

Time	Yes	No	Yes	No	Yes	No	Yes	No
<b>Mental Status: Does he know:</b>								
1) His name?								
2) Where he is?								
3) Time of day?								
4) Most recent activity?								
5) Speech is clear, correct?								
<b>Sight:</b>								
1) Correctly counts fingers?								
2) Vision Clear?								
<b>Eye Movements:</b>								
1) Move all four directions?								
2) Nystagmus absent?								
<b>Facial Movements?</b>								
1) Teeth clench OK?								
2) Able to wrinkle forehead?								
3) Tongue moves all directions?								
4) Smile symmetrical?								
<b>Head/Shoulder Movements:</b>								
1) "Adams Apple" moves?								
2) Shoulder shrug normal, equal?								
3) Head movements normal, equal?								
<b>Hearing:</b>								
1) Normal for that diver?								
2) Equal both ears?								
<b>Sensations: Present, normal and symmetrical across?</b>								
1) Face								
2) Chest								
3) Abdomen								
4) Arms (front)								
5) Hands								
6) Legs (front)								
7) Feet								
8) Back								
9) Arms (back)								
10) Buttocks								
11) Legs (back)								
<b>Muscle Tone: Present, normal and symmetrical for:</b>								
1) Arms								
2) Hand grips								
3) Legs								
4) Feet								
<b>Balance and Coordinate:</b>								
1) Romberg OK?								
2) If Supine: Heel-shin slide OK?								
3) Alternating hand movements OK?								
<b>Vital Signs:</b>								
1) Blood pressure								
2) Pulse								
3) Respirations								

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### Attachment #3

#### Columbia County Report of Work Injury, Incidents and Accident Investigation:

Supervisor to Complete, Sign and Deliver this original to the Human Resources Department and a copy to the Finance Department within 24 hours of the event.

Section A: To be completed by Supervisor

Employee's

Name \_\_\_\_\_

Date of Injury \_\_\_\_\_ Time \_\_\_\_\_ Date Reported \_\_\_\_\_

Time Workday Began \_\_\_\_\_

Nature of Injury and part of body affected \_\_\_\_\_

Sheriff's Office or Police Department Case # \_\_\_\_\_ (If applicable. Attach a copy of the report to this form.) Did this incident involve possible exposure to infectious agents or pathogens?

Section B: Treatment

\_\_\_\_\_ No apparent injury

\_\_\_\_\_ Minor First Aid Only

\_\_\_\_\_ Hospital or Emergency Care

\_\_\_\_\_ Fatal Injury

\_\_\_\_\_ Disabling Injury

\_\_\_\_\_ Potential Permanent Injury

Work Hours Lost day of injury \_\_\_\_\_

Total Lost time hours \_\_\_\_\_

Transported via \_\_\_\_\_

Medical Treatment Offered? \_\_\_\_\_

Medical Treatment Accepted? \_\_\_\_\_

Medical Treatment Refused? \_\_\_\_\_

Employee's Signature \_\_\_\_\_

Attach Medical Treatment Paperwork to this form!

Section C: Details of injury by Supervisor and/or Witness: (Be specific on the facts leading to the injury)  
Use additional pages as necessary.

List all property involved (include: Description & Serial #, Current location, Owner, and Extent of Damage). \_\_\_\_\_

Names and address of any others involved in this incident: \_\_\_\_\_

Supervisor's Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Original to Human Resources Department, Copy to Finance Department  
Columbia County Report of Work Injury, Incidents and Accident Investigations

Section D: To be completed by the Human Resources Department

Injured Employee: \_\_\_\_\_ Employee # \_\_\_\_\_

Address: \_\_\_\_\_ Phone # \_\_\_\_\_

SS# \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Age \_\_\_\_\_ Hire Date: \_\_\_\_\_ Wage Rate: \_\_\_\_\_

Job Title \_\_\_\_\_ Supervisor \_\_\_\_\_

Marital Status \_\_\_\_\_ Department \_\_\_\_\_

---

Section E: Corrective Action (To be Completed by Division/Department Head and delivered to the Human Resources Department within seven (7) days of the event.)

Can corrective action be taken within the department to prevent a recurrence of this injury / accident? \_\_\_\_\_ Yes \_\_\_\_\_ No (Explain) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_ Use additional pages as necessary.

When can corrective action be expected? \_\_\_\_\_

What are the expected costs directly related to this accident or incident? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Division/Department Head Signature \_\_\_\_\_ Date \_\_\_\_\_

## ILLUSTRATION #1

### **SEARCH & RECOVERY - LINE HOLD TECHNIQUE**

The line loop shall be handheld by the diver to insure quick release, if necessary. The line needs to be held securely, however, so that it is not accidentally pulled from the rescue diver's grasp.

Run your hand through the loop (Fig. 1). Then grasp the sides of the loop and close your hand to lock the loop (Fig. 2).

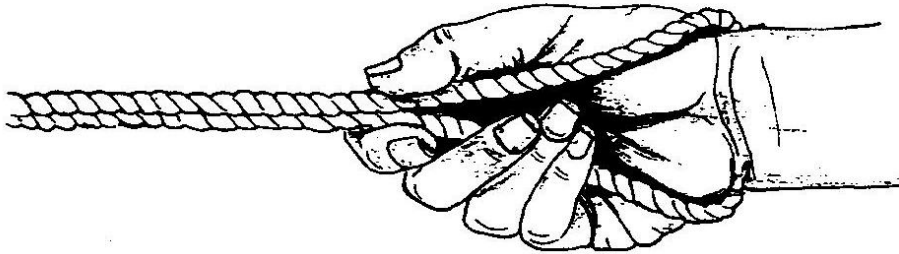
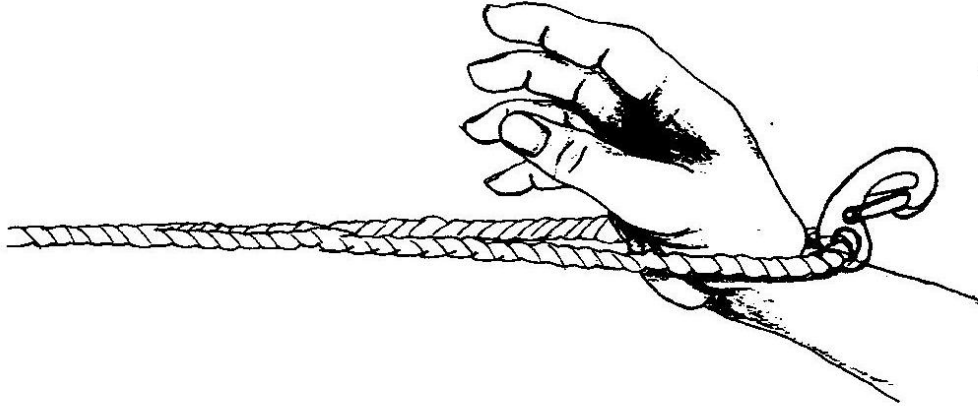
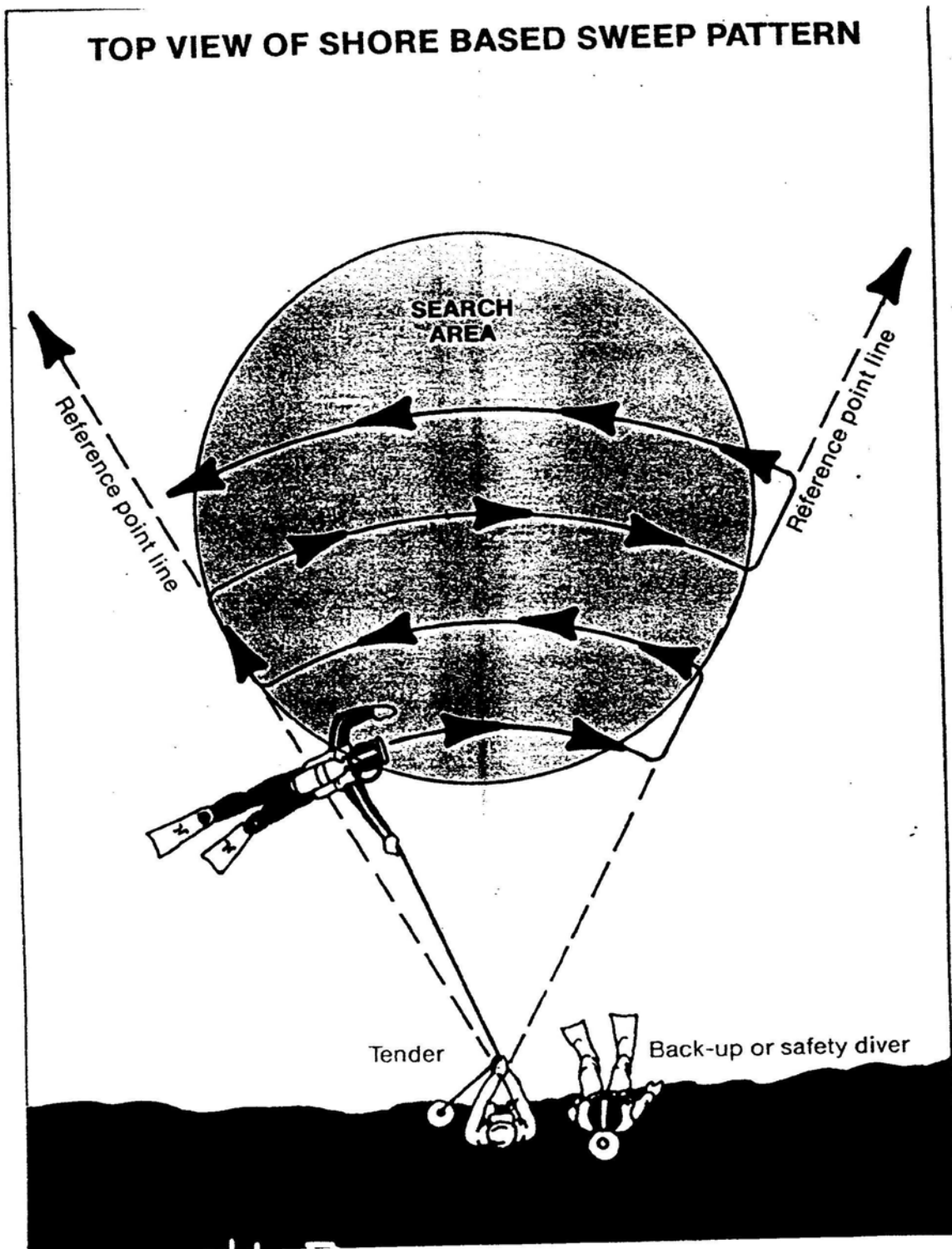


ILLUSTRATION #2





### ILLUSTRATION #3

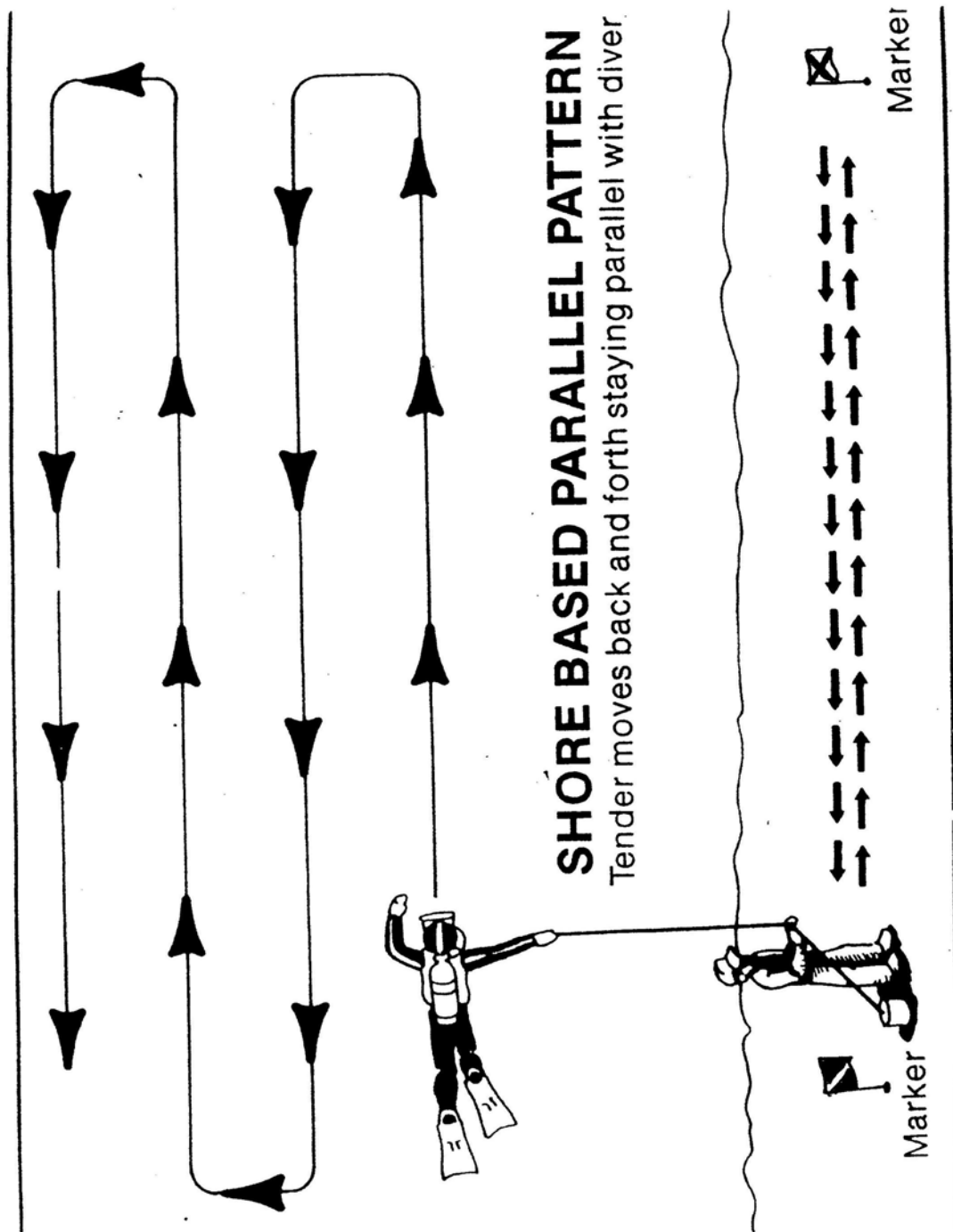
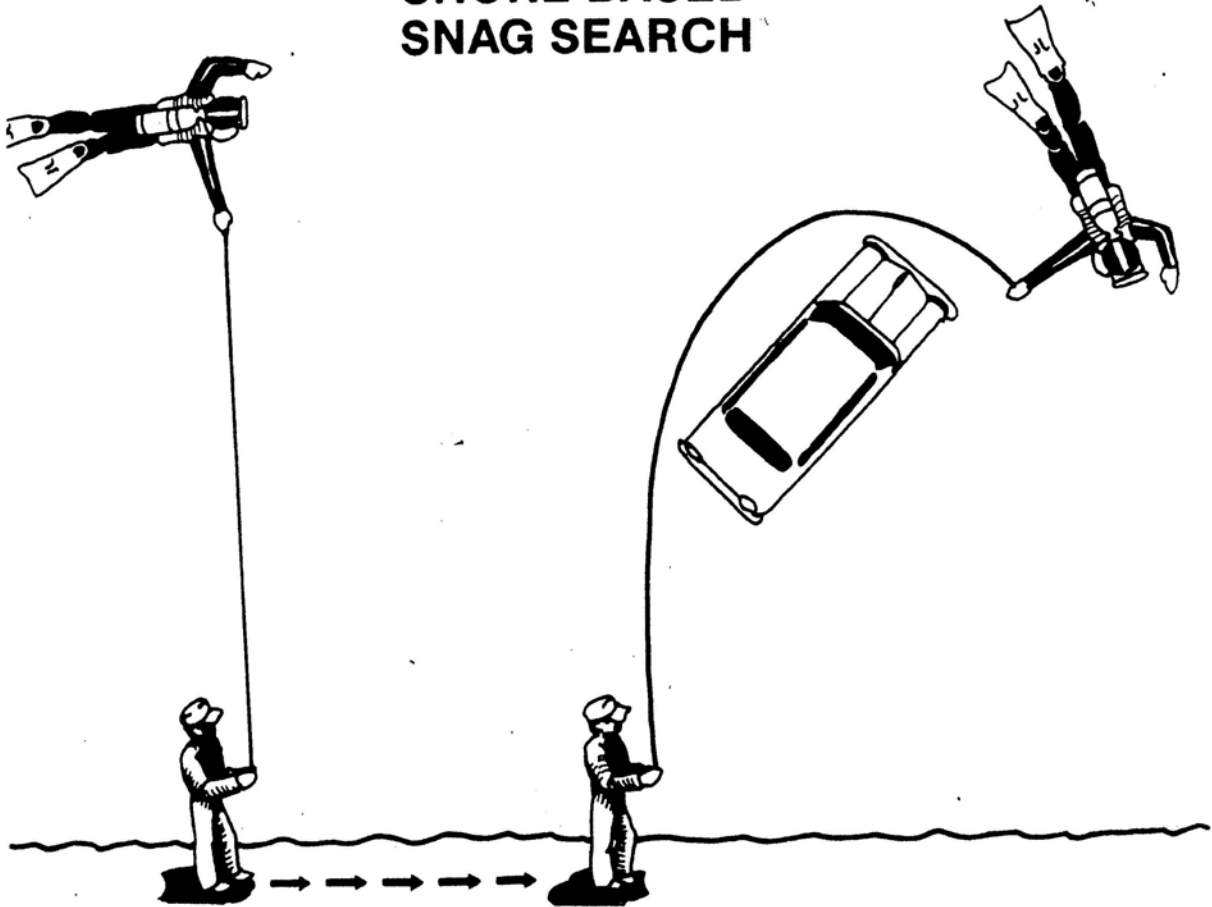


ILLUSTRATION #4

**SHORE BASED  
SNAG SEARCH**



## ILLUSTRATION #5

### In all patterns:

- \* Each sweep should overlap the previous sweep, somewhat, to assure complete coverage of the area of probability.
- \* **DIVER ACCOUNTABILITY MUST BE MAINTAINED!**
- \* In searches using a line, the diver is responsible for keeping the line tight.
- \* The shore based safety diver should be SCUBA equipped
- \* It is mandatory to have the shore based line tender wearing a P.F.D. or a B.C.
- \* There are numerous variations of the standard linear and circular search patterns, based on details and limitations of a particular area of probability. Any variation must be safe as well as efficient as a search pattern to be used.

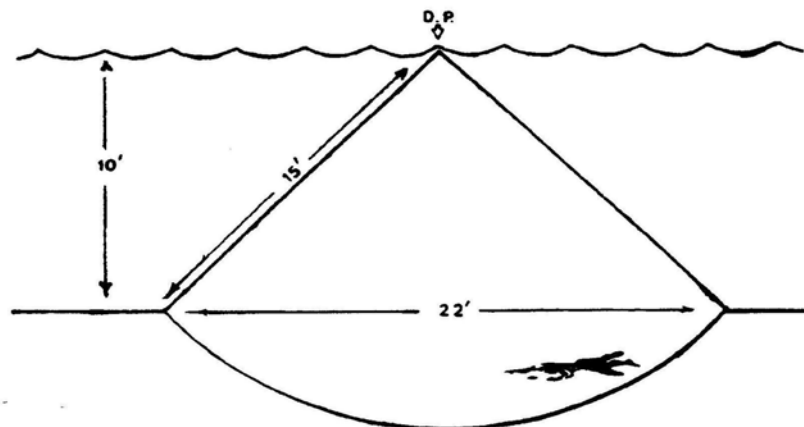
### ADDITIONAL SEARCH INFORMATION

With game rules and strategy understood, we can fine tune our performance by applying some special "tricks of the game" to help insure success.

**I. FIG. 7 Cone of Probability:** Knowledge of the cone of probability helps assure you that if you have a reliable datum point, your patient's proximity to the datum point is mainly a function of water depth.

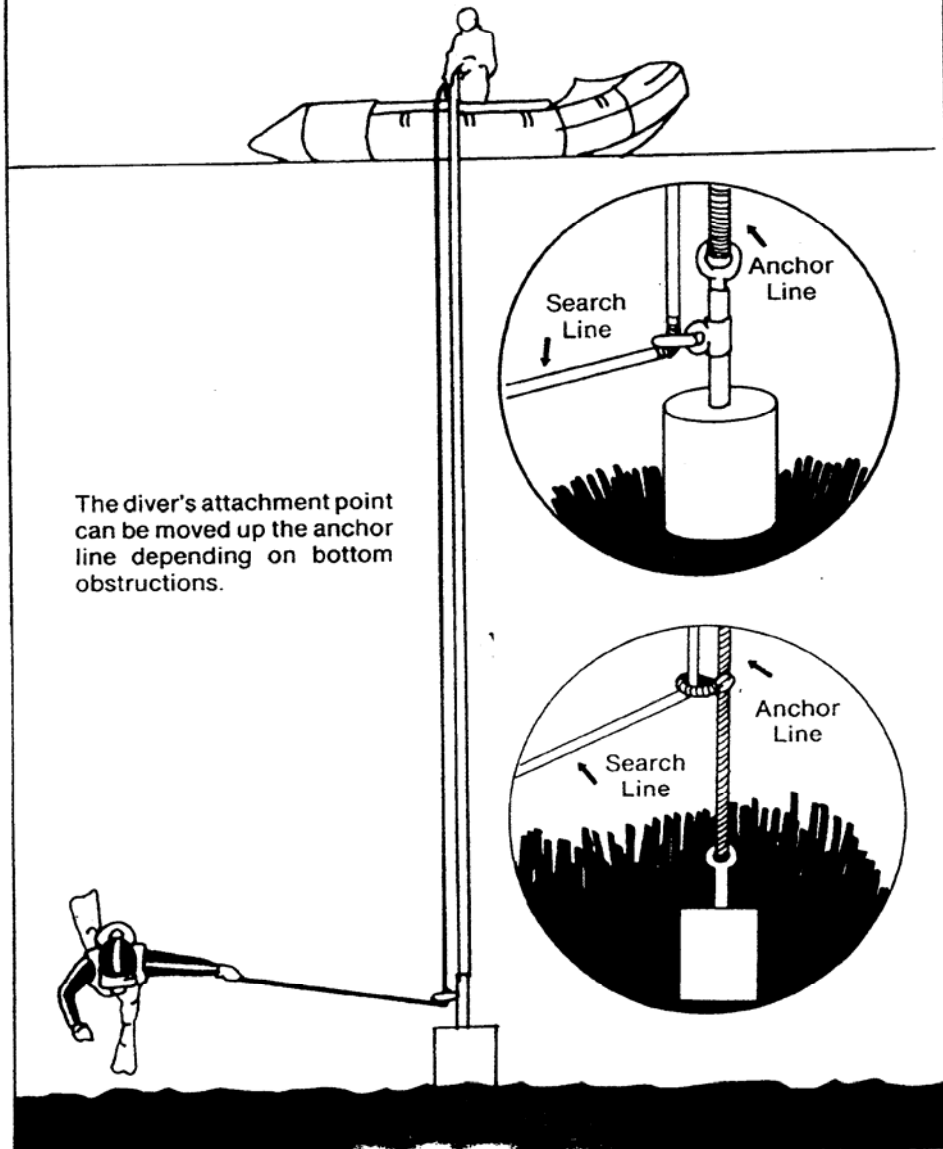
Chance for lateral drift increases with water depth. However, the increase is minimal due to the negative buoyancy and rapid descent of the patient.

### CONE OF PROBABILITY



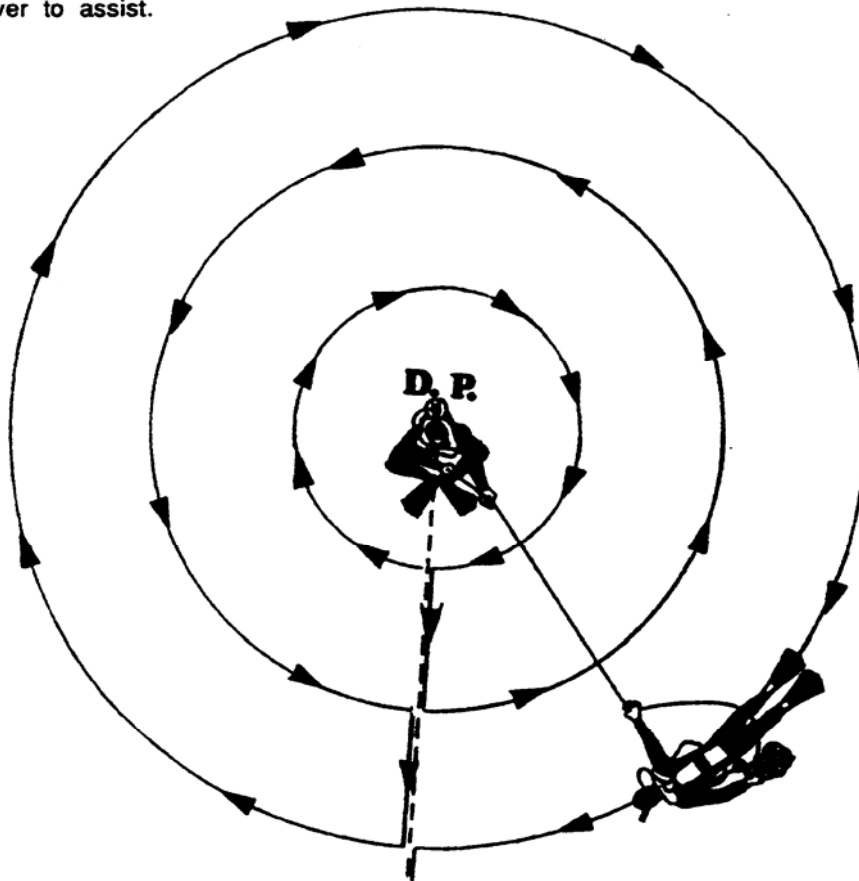
VICTIM DISTANCE FROM D.P. MAX.  $\approx 1.5 \times$  DEPTH AT D.P.

## BOAT BASED CIRCULAR PATTERN

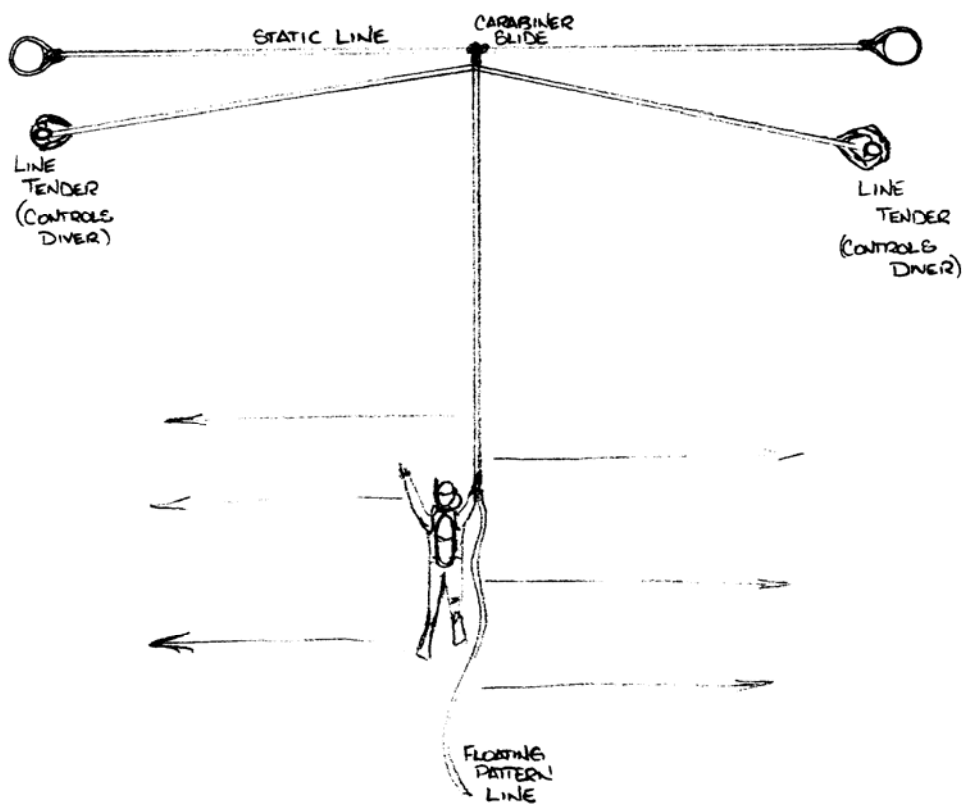


**OFF SHORE DIVER DIRECTED CIRCULAR PATTERN  
AREA OF PROBABILITY & DP**

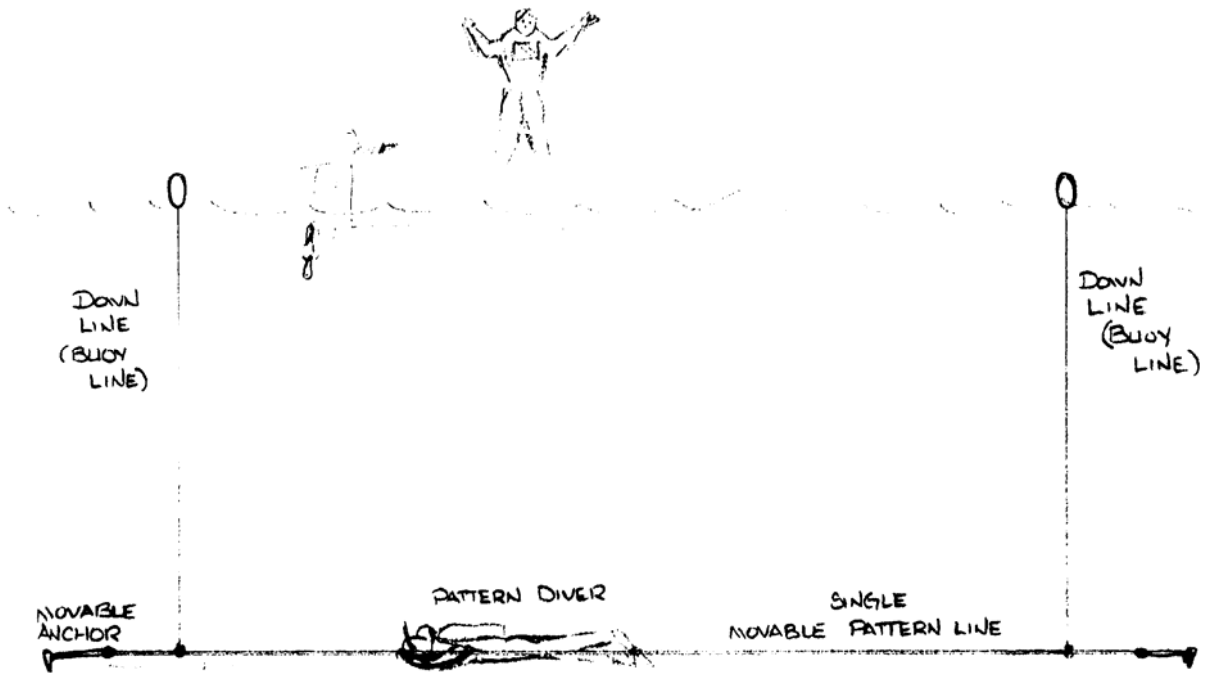
1. Primary Diver and Diver/Tender check D.P. first.
2. Primary Diver establishes line length for concentric search sweeps.
3. Primary Diver carries line bag or line ball.
4. Primary Diver reverses swim direction on each sweep.
5. Diver/Tender anchors at D.P.
6. Diver/Tender signals Primary Diver each time full circle sweep is completed.
7. On 3-pull signal from Primary Diver, Diver/Tender joins Primary Diver to assist.

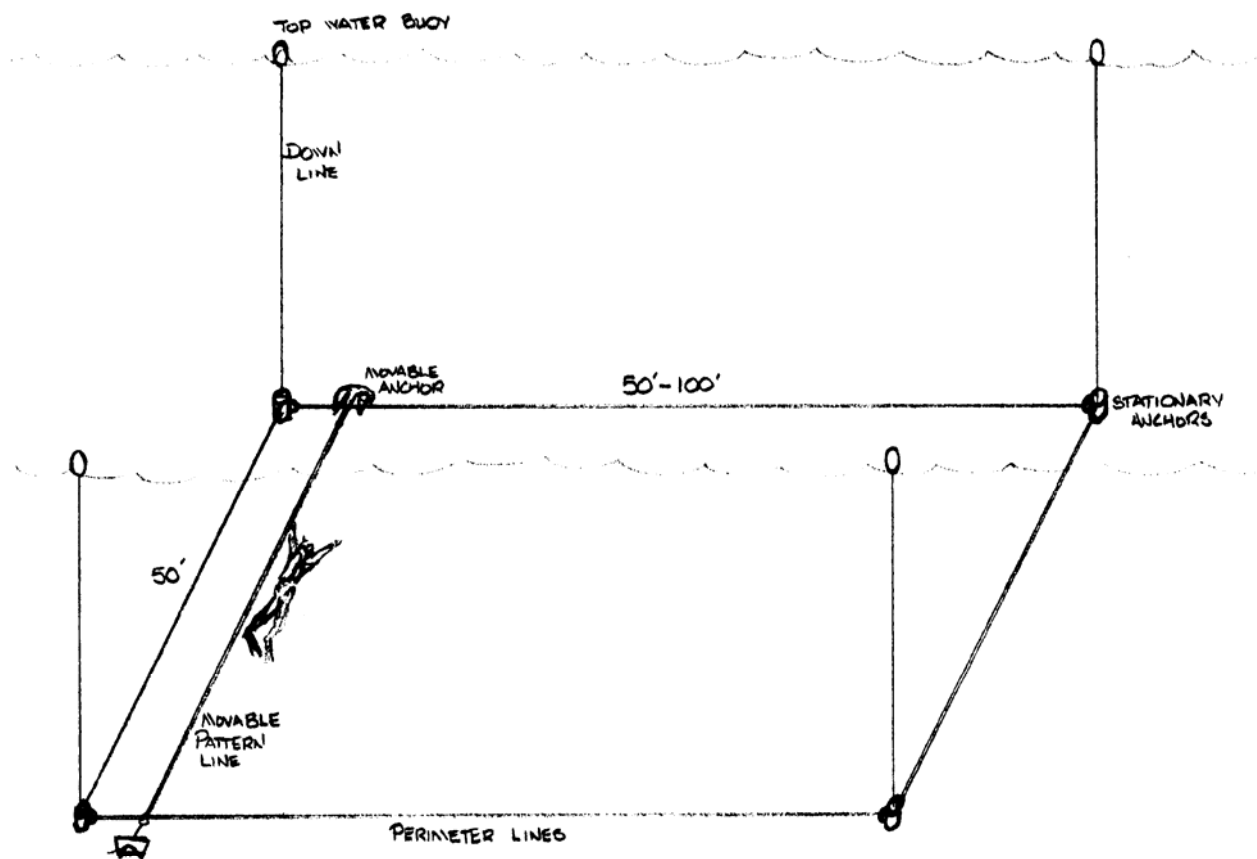


# FAST CURRENT SWEEP PATTERN



## LINEAR OR TRUNK LINE PATTERN



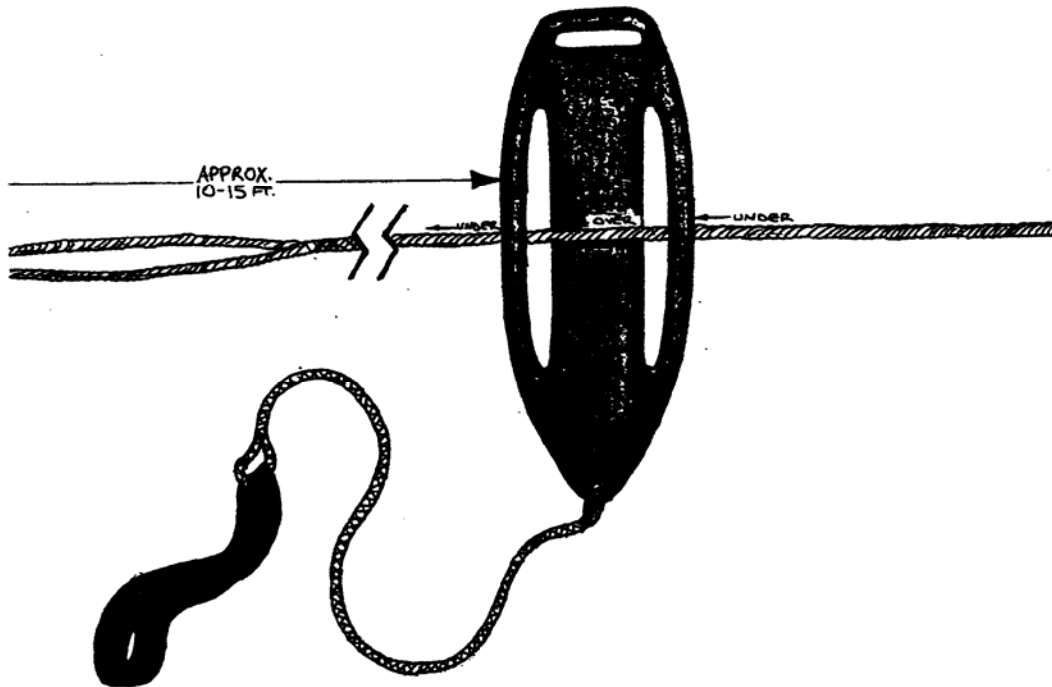


RUNNING JACK STAY PATTERN



### **SEARCH & RECOVERY - RIGGING THE TORPEDO BUOY**

During conduct of Surface Directed Searches, the search line can be prevented from entanglement in shallow water debris and rock ledges by rigging the torpedo buoy on the line. The procedure for rigging is illustrated below. Distance from the buoy to the diver is a function of water depth. Good tight line technique will keep the buoy where you put it on the search line.



**Search and rescue is the most difficult aspect of water rescue. It can be frustrating, frightening, and downright unpleasant. To do it well is a personal triumph as well as an operational success. Done well, it is the ultimate game, played professionally and smoothly, with knowledge and safety against high odds with the highest stakes. Your adversary, the competition, is a traditional, mortal enemy. How satisfying it is to pull a victim from its grasp.**



### Effective Date

This Policy is effective immediately, as approved by the Columbia County Board of Commissioners.

Columbia County, GA



Chairman, Columbia County Board of Commissioners

ATTEST: This 18 day of April, 2006,



Clerk of Commission